

May 22, 2003

Mr. Sam Brenneke
Shell Oil Products U. S.
2258 Grissom Drive
St. Louis, MO 63146

Dear Mr. Brenneke:

Re: Exempt Construction and Operation Status,
057-17170-00060

The application from Shell Oil Products U. S., received on April 17, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following emission unit, to be located at 1821 East 151st Street, Westfield, Indiana, is classified as exempt from air pollution permit requirements:

- (a) One (1) soil vapor extraction system for decontamination of petroleum contaminated soil, with an average air flow rate of 37.0 scfm.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (2) Any modification at the source that may increase the potential to emit of VOCs or a combination of HAPs to 25 tons per year or more, or single HAP to 10 tons per year or more, shall require prior approval of the Office of Air Quality.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

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cc: File - Hamilton County
Hamilton County Health Department
Air Compliance - Marc Goldman
Permit Tracking
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Exemption

Source Background and Description

Source Name:	Shell Oil Products U. S.
Source Location:	1821 East 151st Street, Westfield, IN 46074
County:	Hamilton
SIC Code:	8999
Exemption No.:	057-17170-00060
Permit Reviewer:	Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed an application from Shell Oil Products U.S. relating to the construction and operation of a groundwater and soil remediation facility.

New Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

- (a) One (1) soil vapor extraction system for decontamination of petroleum contaminated soil, with an average air flow rate of 37.0 scfm.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on April 17, 2003.

Emission Calculations

Source submitted data based on soil vapor extraction remedial design testing.

Average air flow = 37 scfm

Average VOC mass loading = 1.52E-03 g/liter of air

Potential to Emit of VOCs = Potential to Emit of HAPs (including benzene, toluene, ethylbenzene,

xylenes)

$$= 1.52 \text{ E-03 g/liter} \times 37 \text{ cu ft/min} \times 1 \text{ liter/1000 cm}^3 \times 1 \text{ cm}^3/3.53\text{E-05 ft}^3 = 1.593 \text{ g/min}$$

$$= 1.593 \text{ g/minute} \times 60 \text{ min/hr} \times 8760 \text{ hr/yr} \times 0.001\text{kg/g} \times 2.2 \text{ lb/kg} \times 1 \text{ ton/2000lb} = \mathbf{0.92 \text{ tons/yr}}$$

Potential To Emit (of Source or Revision) Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	negligible
PM-10	negligible
SO ₂	negligible
VOC	0.9
CO	negligible
NO _x	negligible

HAP's	Potential To Emit (tons/year)
Single HAP	<10
TOTAL	<25

- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.

County Attainment Status

The source is located in Hamilton County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Hamilton County has been designated as attainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Hamilton County has been classified as attainment for PM-10. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2. See the State Rule Applicability for the source section.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source, located in Hamilton County, has potential to emit of all criteria pollutants below 250 tons per year, and it is not one of the 28 listed source categories. Therefore, 326 IAC 2-2 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in Hamilton County and the potential to emit of all criteria pollutants is less than hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of the soil remediation unit at the source will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute

averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

The VOC potential to emit of the soil remediation system is less than the applicability threshold of 25 tons per year. Therefore, 326 IAC 8-1-6 does not apply.

Conclusion

The construction and operation of the soil remediation facility shall be subject to the conditions of the Exemption No. 089-17170-00113.